

FIG. 1

The diagram illustrates a multi-channel optical signal processing system, labeled 10. It features two main input channels, 1 and N, and a central processing unit. Each channel includes a series of optical components: a waveguide (14), a switch (15), a waveguide (16), a switch (22), a waveguide (24), a switch (26), and a waveguide (30). The central processing unit includes a waveguide (38), a switch (39), and a waveguide (40). The system is controlled by a CONTROL UNIT (50) which provides signals to various components (20, 60, 60, 60). A CONVERSION RANGE ($\lambda_1 \dots \lambda_{n \cdot N}$) is indicated for the central processing unit.





